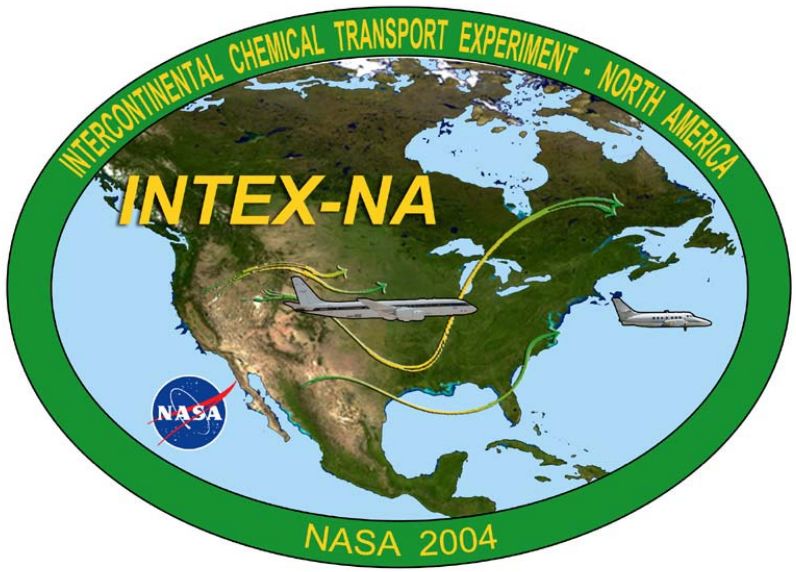
NASA Earth Science
Mission Readiness Review
(MRR)



INTEX

Intercontinental Chemical Transport Experiment

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INTEX MRR - Agenda

Introduction & Welcome
- Steve Hipskind, Acting Division Chief, Earth Science, NASA ARC

Program Overview
- James Gleason, Program Manager, NASA HQ

Science Overview
- Hanwant Singh, INTEX project Scientist, NASA ARC
- Science Objective
- Collaborators
- Success Criteria
- Go/No-go

Mission Overview
- Kent Shiffer, INTEX Project Manager, NASA ARC
- Organization Chart
- Deployment Sites
  - Facilities
  - Host Agreements
- Communications
- Coordination
- Schedule

DC-8 Flight Operations
- Bob Curry, DC-8 Mission Manager, NASA DFRC
- Review Process
- Instrument Integration
- Readiness
- Dip Clearances
- Bill Brockett – Aircraft Coordination

J-31 Flight Operations
- Phil Russell – J-31 Mission Scientist, NASA ARC
- Science Objectives
- Readiness
- Reviews

Discussion / Open Items

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Organization

ICARTT

NOAA
Fred Fehsenfeld

Program Manager
J. Gleason, NASA HQ

Project Scientist
Hanwant Singh, ARC

ESPO
K. Shiffer, ARC

Data Management
LaRC

Host Facility
MidAmerica Airport

Host Facilities
Pease Tradeport

J-31 Aircraft

Phil Russell
Mission Scientist

Pilot
Ben Hovelman

DC-8 Aircraft

Mission Manager
Bob Curry, DFRC

Chief Pilot
Bill Brockett

Aircraft Manager
S. Davis

DC-8 Instrument Teams

J-31 Instrument Teams

Forecasting Teams

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BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
ONTARIO
Seattle
Regina
Winnipeg
Thunder Bay
Charlottetown
NEW BRUNSWICK
MAINE
Portland
WASHINGTON
Helena
MONTANA
NORTH DAKOTA
Bismarck
Duluth
MINNESOTA
OREGON
Boise
IDAHO
Sheridan
SOUTH DAKOTA
Sioux Falls
Minneapolis
WISCONSIN
Milwaukee
MICHIGAN
Detroit
Toronto
Ontario
Syracuse
NEW YORK
CONN.
Providence
Boston
Pease Tradeport
WYOMING
IOWA
Toledo
Chicago
New York
Reno
Cheyenne
NEBRASKA
Omaha
OHIO
PA.
Philadelphia
NEVADA
Salt Lake City
Baltimore
Columbus
Dover
MidAmerica Airport
UTAH
Indianapolis
Cincinnati
W. VA.
Washington, D.C.
Denver
U N I T E D
S T A T E S
ILLINOIS
INDIANA
KY.
V A.
Virginia Beach
CALIFORNIA
COLORADO
Kansas City
St. Louis
Louisville
St. George
KANSAS
Las Vegas
NORTH CAROLINA
Charlotte
Knoxville
Santa Fe
Oklahoma City
Los Angeles
ARIZONA
San Diego
Phoenix
NEW MEXICO
OKLAHOMA
S.C.
Atlanta
GEORGIA
Savannah
Dallas
ALABAMA
LOUISIANA
Jacksonville
TEXAS
Baton Rouge
Mobile
Tallahassee
Hermosillo
Austin
San Antonio
New Orleans
FLORIDA
Houston
Chihuahua
Ciudad Obregón
Tampa
M E X I C O
Gulf of Mexico
Miami
Nassau
Hidalgo del Parral
Monclova
Torreón
A t l a n t i c
O c e a n

MidAmerica Airport

MidAmerica Terminal

International area of Terminal Building

- 3500 square feet of office space, 1Mbps Internet, printer, copier.

Aircraft parking-close proximity to lab area.

Ground support equipment supplied by the FBO.

Government contract fuel costs.

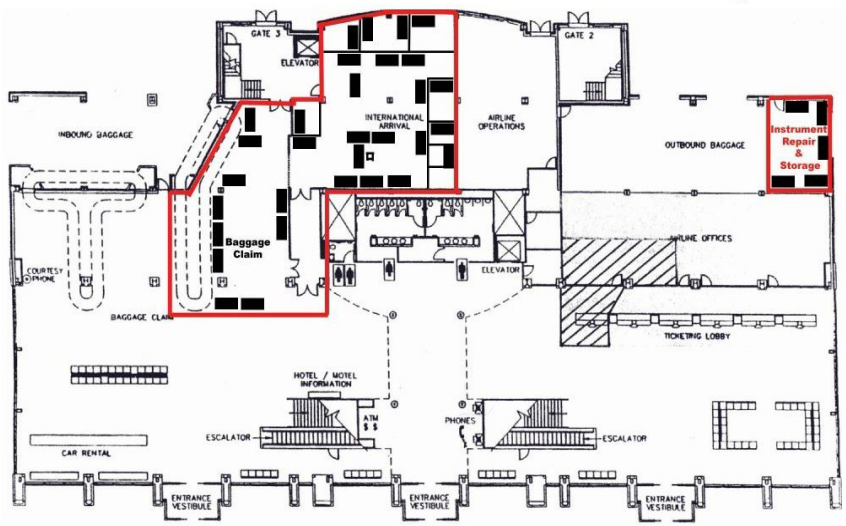
Security,

- Access to aircraft ramp governed by TSA, Badge or escort <u>required</u>
- *Lab space within SIDA area

Local Hospitals

- Scott AFB
- St Elisabeth, Belleville Ill.

Aircraft Parking



Car Parking Lot

Pease Tradeport

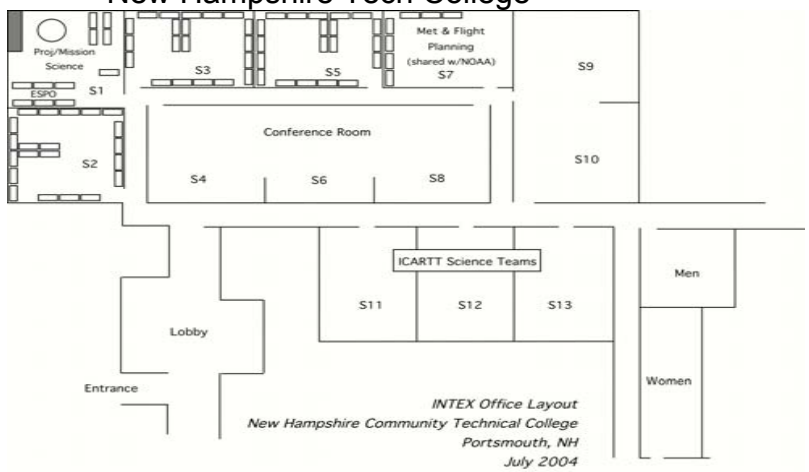
Port City Air (Fixed Base Operator)

- DC-8 Parking
  - Ground Support Equipment supplied by the FBO except A/C Air-conditioners
- J-31 Parking

- Crew office space, Internet, fax
- Security, Ramp access requires
  - Pease Development Authority issued General Aviation Badge or escort.

Port City Air Crew Space

New Hampshire Tech College



N.H. Community Tech College

- 2500 square feet of office space
- T-1 Internet, Printers, Fax, Copier

Local Hospital,

- Portsmouth Regional Hospital

Agreements

Host Agreements

- MidAmerica Airport, St Clair County, Ill
- Port City Air, Pease Tradeport
- Interagency Agreement between NASA INTEX and NOAA

  Share support services for New Hampshire Community Tech College, Portsmouth, NH

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Collaborations

ICARTT International Consortium for Atmospheric Research on Transport & Transformation

NASA (INTEX)	DC-8, J-31, Proteus
NOAA (ITCT)	WP-3D, DC-3, Ron Brown (ship)
DOE	G-1
Cirpas	Twin Otter
Canada	Convair 580
UK	BAE 146
Germany	DLR Falcon
France	CNRS Falcon
Univ. Wyoming	King Air
UMD	Aztec
AIRMAP	NOAA/Univ. New Hampshire
Ground Stations	Chebogue Point, Thompson Farm
Smart Balloons	UNH, Univ. Hawaii / UMASS
Satellites	AQUA, TERRA, ENVISAT

ITOP Intercontinental Transport for Ozone and Precursors European Consortium

France, Germany, UK

Communication

ESPO's INTEX Website will provide

- **Daily schedule**
- **Quick-look data posting**
- **Flight plan posting**
- **Flight and mission reports from Mission Scientist as well as Mission Managers.**

NEXTEL Cell phones with conference capability

Daily science meetings to discuss objectives

Daily coordination meetings NASA/NOAA/etc

Preflight meetings

Inter-comparison Flights

NASA DC-8 - NOAA WP-3
NASA DC-8 - Sky Research J-31
NASA DC-8 - BA-146
NASA DC-8 - DLR Falcon
NASA DC-8 - Proteus
Sky Research J-31 - NOAA Ron Brown - no lower then 200 feet
Sky Research J-31 – NOAA WP-3

*Pilot to pilot conversation and complete understanding and agreement to details required prior to any type of coordinated flight.

*Stacked formation flights will not ask for any exceptions to normal FAA separation clearances.

*DC-8 has participated in coordinated flights on previous missions with the NOAA WP-3D at CAMEX, SONEX

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Aircraft Communications

- Aircraft coordinated flight communications on assigned aircraft VHF radio frequency

- Ron Brown/J-31 flight track discussion prior to takeoff Globalstar Phone
- J-31 marine band VHF radio installed
- J-31 via an assigned Marine Band VHF radio frequency

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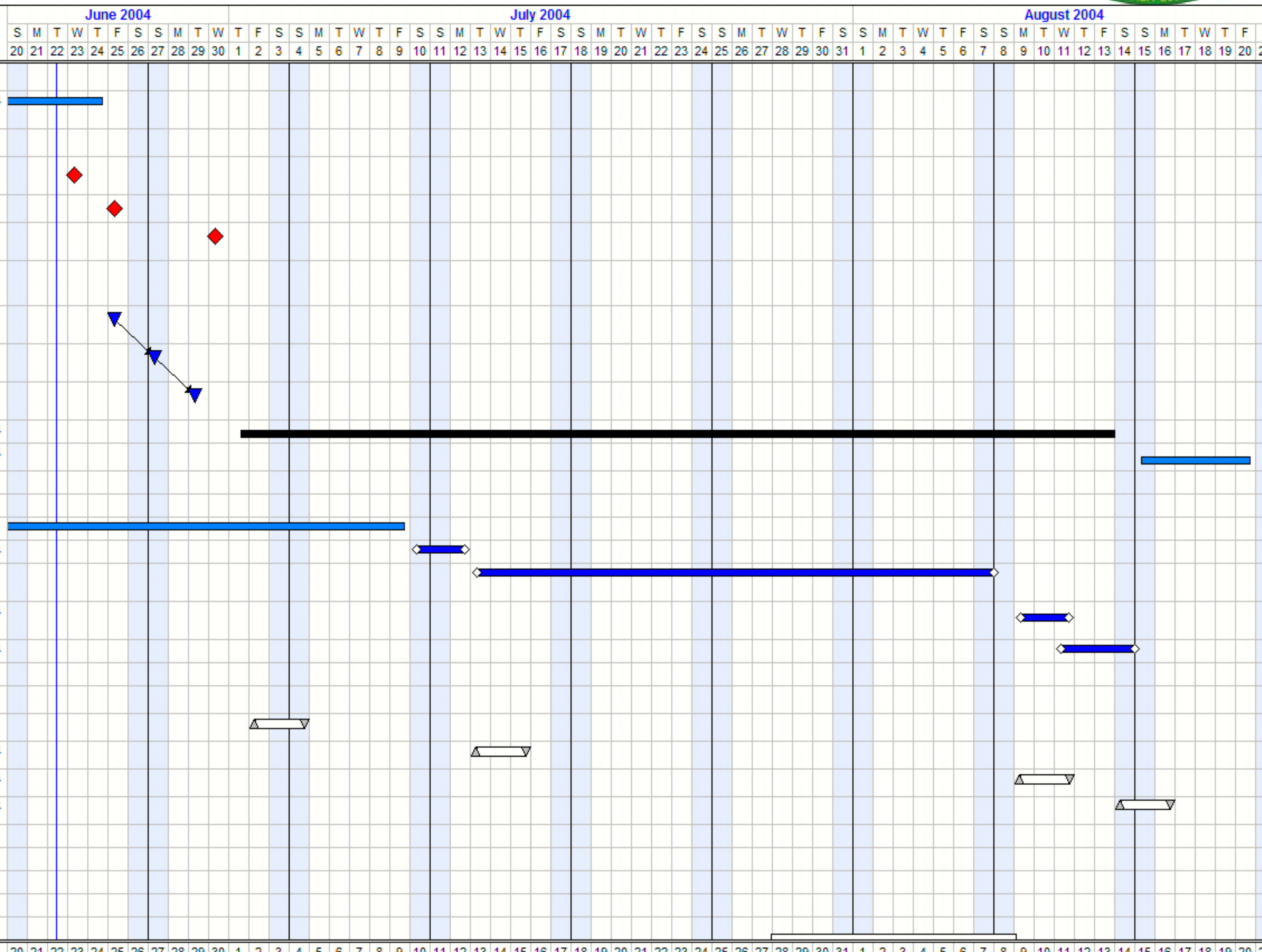
Schedule

Activity Name	Start Date	Finish Date
DC-8 DFRC		
DC-8 Instrument Upload	5/24/04	6/24/04
Reviews - Briefs		
MIssion Readiness Review (MRR)	6/23/04	
Safety Brief	6/25/04	
Operational Readiness	6/30/04	
Test Fights DFRC		
DFRC:Test-Flt #1 2h	6/25/04	
DFRC:Test-Flt #2 4h	6/27/04	
DFRC:Test-Flt #3 8h	6/29/04	
Science Flights	7/1/04	8/14/04
DFRC Instrument DnLoad	8/15/04	8/20/04
J-31		
Instrument Integration	5/17/04	7/9/04
Transit from ARCto PSM	7/10/04	7/12/04
Flights at PSM 50 hrs	7/13/04	8/8/04
Transit from PSM to Ashland, OR	8/9/04	8/11/04
Download Inst.	8/11/04	8/15/04
Shipping		
Ship DFRC-BLV	7/2/04	7/4/04
Ship BLV-PSM	7/13/04	7/15/04
Ship PSM-BLV	8/9/04	8/11/04
Ship BLV-DFRC	8/14/04	8/16/04



OPEN Items

- J-31 safety review
- NSF Balloon launches - both below FAA small balloon requirements @< 6lbs, 3 each
  - UMASS/Paul Voss - Cape Cod
    *Will file NOTAM prior to launch
  - UH/Steven Businger NOAA/Randy Johnson – Orient, Long Island
    *Will file NOTAM prior to launch

- DC-3 down looking Lidar-class 4

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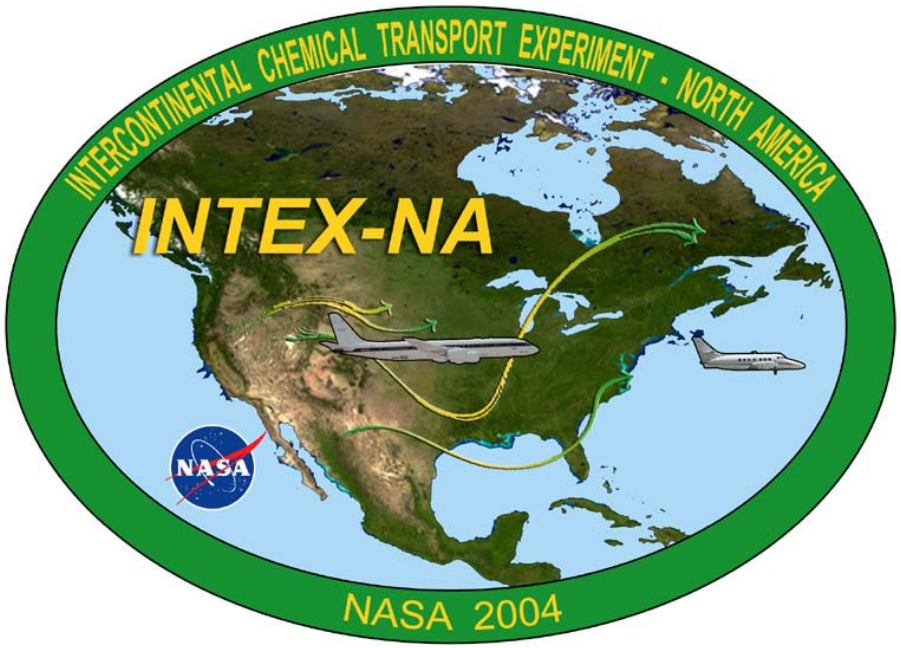
Discussion



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